GS1 Series Introduction

GS1 Series Drives					
Motor Rating	Hp	0.25	0.5	1	2
	kW	0.2	0.4	0.75	1.5
115V Single-Phase Input / 230V Three-Phase Output		✔	✔		
230V Single-Phase Input / 230V Three-Phase Output		✔	✔	✔	
230VThree-Phase Input / Output					✔

Overview

The GS1 series of AC drives is our most affordable and compact inverter, offering V/Hz control with general purpose application features. These drives can be configured using the built-in digital keypad (which also allows you to set the drive speed, start and stop, and monitor specific parameters) or with the standard RS-485 serial communications port. Standard GS1 features include one analog input, four programmable digital inputs and one programmable normally open relay output.

Features

- Simple Volts/Hertz control
- Pulse Width Modulation (PWM)
- 3 – 10 kHz carrier frequency
- IGBT technology
- 130% starting torque at 5Hz
- 150% rated current for one minute
- Electronic overload protection
- Stall prevention
- Adjustable accel and decel ramps
- S-curve settings for acceleration and deceleration
- Manual torque boost
- Automatic slip compensation
- DC braking
- Built-in EMI filter
- Three skip frequencies
- Trip history
- Integral keypad and speed potentiometer
- Programmable jog speed
- Three programmable preset speeds
- Four programmable digital inputs
- One programmable analog input
- One programmable relay output
- RS-485 Modbus communications up to 19.2K
- Optional Ethernet communications
- Two-year warranty
- UL/cUL/CE listed

Accessories

- AC line reactors
- RF filter
- Fuse kits and replacement fuses
- Ethernet interface
- Four and eight-port RS-485 multi-drop termination board
- Serial communication cables available for creating plug and play RS-232/RS-485 networks with AutomationDirect PLCs. See the comm cable matrix on page DR-93.
- KEP***Direct*** I/O or OPC Server
- GSoft drive configuration software
- USB-485M – USB to RS-485 PC adapter (see "Communications Products" chapter for detailed information)

Detailed descriptions and specifications for GS accessories are available in the "GS/DURAPULSE Accessories" section.

Typical Applications

- Conveyors
- Fans
- Pumps
- Shop tools

GS1 series part numbering system

GS1 - 2 0P5

Applicable Motor Capacity

0P2: 1/4hp
0P5: 1/2hp
1P0: 1hp
2P0: 2hp

Input Voltage

1: 100-120VAC
2: 200-240VAC

Series Name

GS1 Series Specifications

115V/230V CLASS GS1 Series							
Model		**GS1-10P2**	**GS1-10P5**	**GS1-20P2**	**GS1-20P5**	**GS1-21P0**	**GS1-22P0**
Price		$99.00	$117.00	$113.00	$117.00	$134.00	$164.00
Motor Rating	**HP**	1/4 hp	1/2 hp	1/4 hp	1/2 hp	1hp	2hp
	kW	0.2 kW	0.4 kW	0.2 kW	0.4 kW	0.7 kW	1.5 kW
Rated Output Capacity (200V) kVA		0.6	1.0	0.6	1.0	1.6	2.7
Rated Input Voltage		Single-phase: 100–120 VAC ±10%; 50/60 Hz ±5%		Single/three-phase: 200–240 VAC ±10%; 50/60 Hz ±5%			Three-phase: 200–240 VAC±10%; 50/60 Hz ±5%
Rated Output Voltage		Three-phase corresponds to double the input voltage		Three-phase corresponds to the input voltage			
Rated Input Current (A)		6	9	4.9/1.9	6.5/2.7	9.7/5.1	9
Rated Output Current (A)		1.6	2.5	1.6	2.5	4.2	7.0
Watt Loss @ 100% I (W)		19.2	19.2	18.4	26.8	44.6	73
Weight: kg (lb)		2.10	2.20	2.20	2.20	2.20	2.20
Dimensions (HxWxD) (mm [in])		132.0 x 68.0 x128.1 [5.20 x 2.68 x 5.04]					
Accessories							
Line Reactor *		LR-1xxPx-xxx (refer to "GS/DURApulse Drives Accessories – Line Reactors" section for exact part #)					
RF Filter		RF220X00A					
Fuse Kit **	**Single-Phase****	GS-10P2-FKIT-1P	GS-10P5-FKIT-1P	GS-20P2-FKIT-1P	GS-20P5-FKIT-1P	GS-21P0-FKIT-1P	–
	Three-Phase	–	–	GS-20P2-FKIT-3P	GS-20P5-FKIT-3P	GS-21P0-FKIT-3P	GS-22P0-FKIT-3P
Replacement Fuses	**Single-Phase**	GS-10P2-FUSE-1P	GS-10P5-FUSE-1P	GS-20P2-FUSE-1P	GS-20P5-FUSE-1P	GS-21P0-FUSE-1P	–
	Three-Phase	–	–	GS-20P2-FUSE-3P	GS-20P5-FUSE-3P	GS-21P0-FUSE-3P	GS-22P0-FUSE-3P
Ethernet Communications module for GS Series Drives (DIN rail mounted)		GS-EDRV100					
USB to RS-485 PC Communication Adapter		USB-485M					
RS-485 Communication Distribution Module (for creating plug and play RS-485 networks)		ZL-CDM-RJ12X4 / ZL-CDM-RJ12X10					
RS-485 Serial Cable, GS Drive to DL06/D2-260		GS-485HD15-CBL-2					
RS-485 Serial Cable, GS Drive to ZIPLink CDM Module		GS-485RJ12-CBL-2					
Software		GSoft / KEP*Direct*					
OPC Server		KEP*Direct*					

**** GS1-1xxx drives require 115V class input line reactors and 230V class output line reactors.***
***** Single-phase fuse kits and fuses are used only with GS1-1xxx drives.***

GS1 General Specifications

General Specifications			
Control Characteristics			
Control System			Sinusoidal Pulse Width Modulation, carrier frequency 3kHz–10kHz
Rated Output Frequency			1.0 to 400.0 Hz limited to 9999 motor rpm
Output Frequency Resolution			0.1 Hz
Overload Capacity			150% of rated current for 1 minute
Torque Characteristics			Includes manual torque boost, auto-slip compensation, starting torque 130% @ 5.0Hz
DC Braking			Operation frequency 60–0Hz, 0–30% rated voltage. Start time 0.0–5.0 seconds. Stop time 0.0–25.0 seconds
Acceleration/Deceleration Time			0.1 to 600 seconds (can be set individually)
Voltage/Frequency Pattern			V/F pattern adjustable. Settings available for Constant Torque – low and high starting torque, Variable Torque – low and high starting torque, and user configured
Stall Prevention Level			20 to 200% of rated current
Operation Specification			
Inpus	**Frequency Setting**	**Keypad**	Setting by <UP> or <DOWN> buttons or potentiometer
		External Signal	Potentiometer - 5kΩ 0.5W, 0 to 10 VDC (input impedance 47kΩ), 0 to 20 mA / 4 to 20 mA (input impedance 250Ω), Multi-function inputs 1 to 3 (3 steps, JOG, UP/DOWN command), RS485 communication setting
	Operation Setting	**Keypad**	Setting by <RUN>, <STOP> buttons
		External Signal	DI1, DI2, DI3, DI4 can be combined to offer various modes of operation, RS485 communication port
Outputs	**Multi-Function Input Signal**		Multi-step selection 0 to 3, Jog, Accel/decel inhibit, First/second accel/decel switch, Counter, PLC operation, External base block (N.C., N.O.) selection
	Multi-Function Output Signal		AC drive operating, Frequency attained, Non zero speed, Base Block, Fault indication, Local/remote indication, PLC operation indication
	Operating Functions		Automatic voltage regulation, S-curve, Over-voltage stall prevention, DC braking, Fault records, Adjustable carried frequency, Starting frequency setting of DC braking, Over-current stall prevention, Momentary power loss restart, Reverse inhibition, Frequency limits, Parameter lock/reset
Protective Functions			Overcurrent, overvoltage, undervoltage, electronic thermal motor overload, Overheating, Overload, Self testing
Operator Interface	**Operator Devices**		5-key, 4-digit, 7-segment LED, 3 status LEDs, potentiometer
	Programming		Parameter values for setup and review, fault codes
	Parameter Monitor		Master Frequency, Output Frequency, Scaled Output Frequency, Output Voltage, DC Bus Voltage, Output Direction, Trip Event Monitor, Trip History Monitor
	Key Functions		RUN/STOP, DISPLAY/RESET, PROGRAM/ENTER, <UP>, <DOWN>
Environment	**Enclosure Rating**		Protected chassis, IP20
	Ambient Operating Temperature		-10° to 40°C (14°F to 104°F) w/o derating
	Storage Temperature		-20° to 60 °C (-4°F to 140°F) during short-term transportation period)
	Ambient Humidity		0 to 90% RH (non-condensing)
	Vibration		9.8 m/s^2 (1G), less than 10Hz; 5.88 m/s^2 (0.6G) 20 to 50 Hz
	Installation Location		Altitude 1000m or lower above sea level, keep from corrosive gas, liquid and dust
Options			Programming Software (GSOFT)

GS1 Specifications - Installation

Understanding the installation requirements for your GS1 drive will help to ensure that it will operate within its environmental and electrical limits.

NOTE:
Never use only this catalog for installation instructions or operation of equipment; refer to the user manual, GS1-M.

Environmental Specifications	
Protective Structure [1]	IP20
Ambient Operating Temperature [2]	-10 to 40°C
Storage Temperature [3]	-20 to 60°C
Humidity	to 90% (no condensation)
Vibration [4]	5.9 m/s^2 (0.6g), 10 to 55 Hz
Location	Altitude 1,000 m or less, indoors (no corrosive gases or dust)

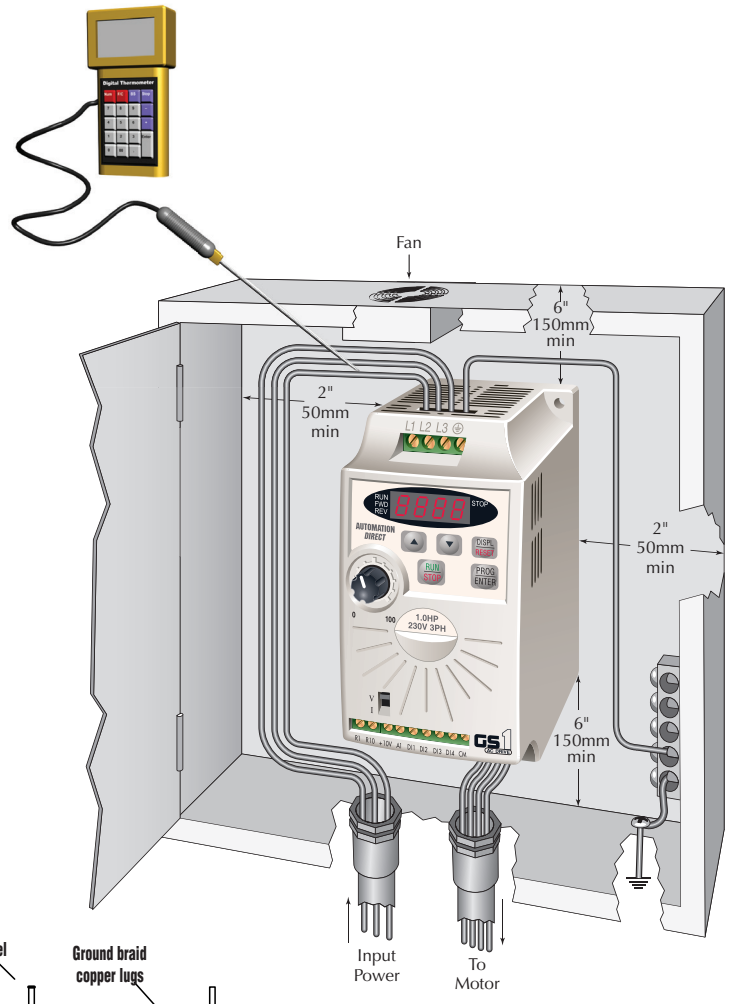
1: Protective structure is based upon EN60529

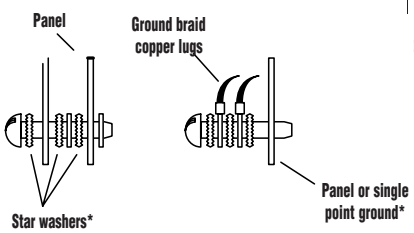
2: The ambient temperature must be in the range of -10° to 40° C. If the range will be up to 50° C, you will need to set the carrier frequency to 2.1 kHz or less and derate the output current to 80% or less. See our Web site for derating curves.

3: The storage temperature refers to the short-term temperature during transport.

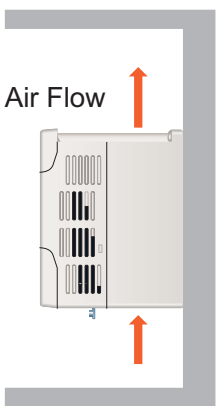
4: Conforms to the test method specified in JIS CO911 (1984)

Watt Loss Chart	
GS1 Drive Model	***At full load***
GS1-10P2	19.2
GS1-10P5	19.2
GS1-20P2	18.4
GS1-20P5	26.8
GS1-21P0	44.6
GS1-22P0	73





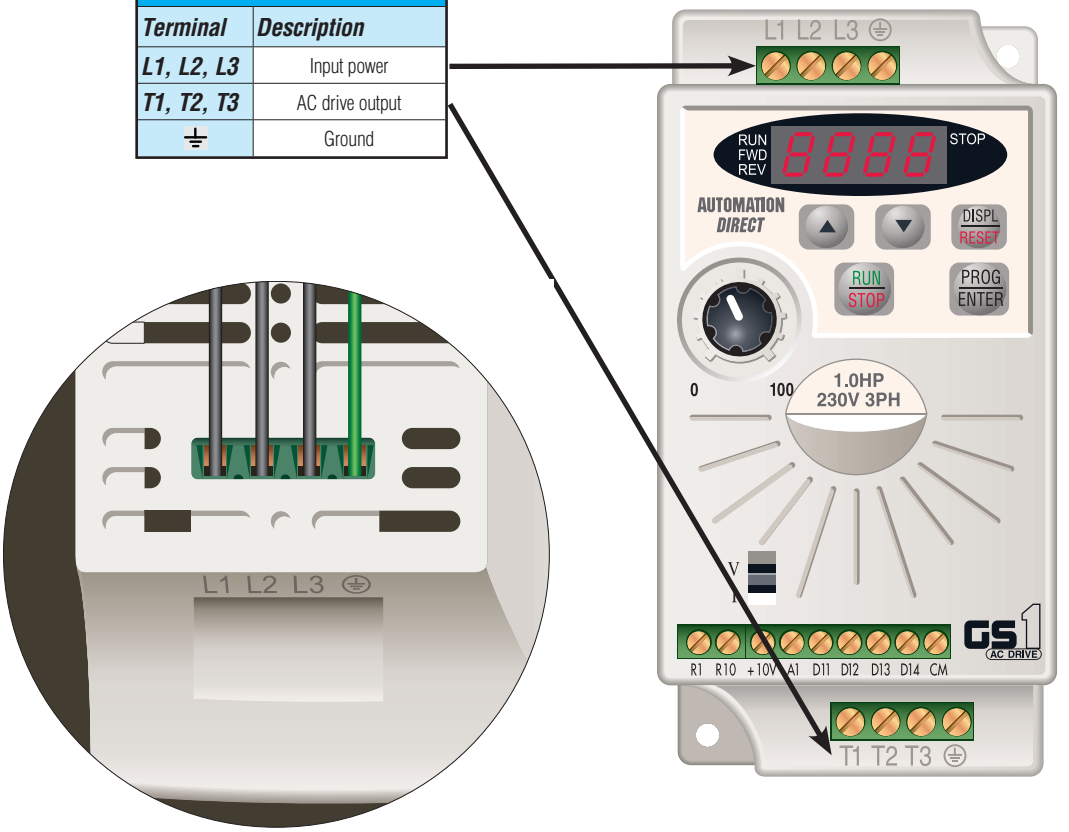
** FOR PAINTED SUB-PANELS, SCRAPE THE PAINT FROM UNDER-NEATH THE STAR WASHERS BEFORE TIGHTENING THEM.*



Warning: AC drives generate a large amount of heat, which may damage the AC drive. Auxiliary cooling methods are typically required in order to not exceed maximum ambient temperatures.

GS1 Specifications - Terminals

Main Circuit Wiring	
Terminal	***Description***
L1, L2, L3	Input power
T1, T2, T3	AC drive output
⏚	Ground



Control Circuit Terminals	
Terminal Symbol	***Description***
R1O	Relay output 1 normally open
R1	Relay output 1 common
DI1	Digital input 1
DI2	Digital input 2
DI3	Digital input 3
DI4	Digital input 4
AI [1]	Analog input
+10V	Internal power supply (10 mA @ 10 VDC)
CM	Common

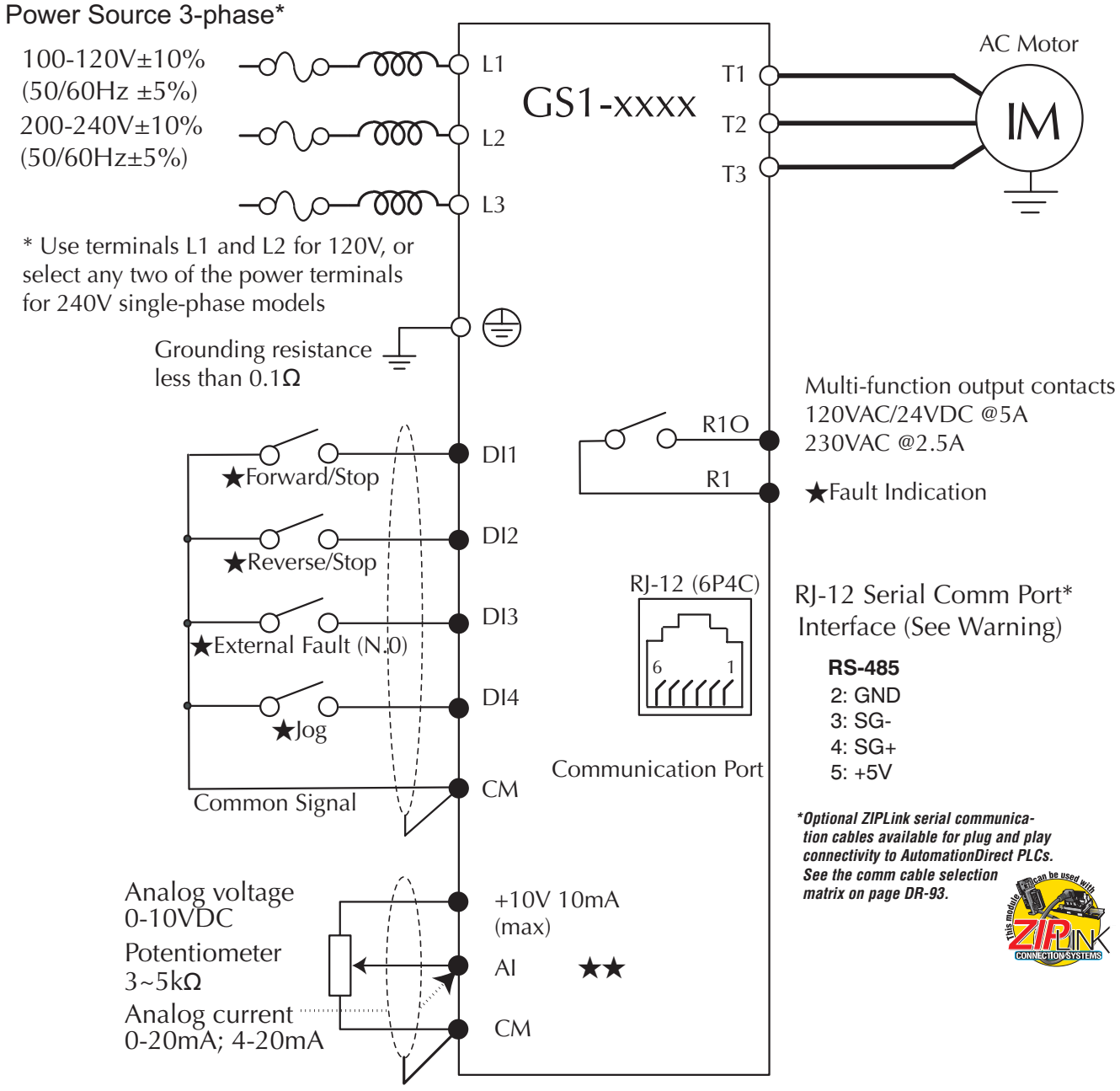
[1] 0 to +10 VDC, 0 to 20 mA, or 4 to 20 mA input represents zero to maximum output frequency.

Note: Use twisted-shielded, twisted-pair or shielded-lead wires for the control signal wiring. It is recommended all signal wiring be run in a separate steel conduit. The shield wire should only be connected at the drive. Do not connect shield wire on both ends.

GS1 Specifications - Basic Wiring Diagram

Note: Users MUST connect wiring according to the circuit diagram shown below. (Refer to user manual GS1-M for additional specific wiring information.)

Note: Refer to the following pages for explanations and information regarding line reactors and RF filters: DR-50, DR-80.



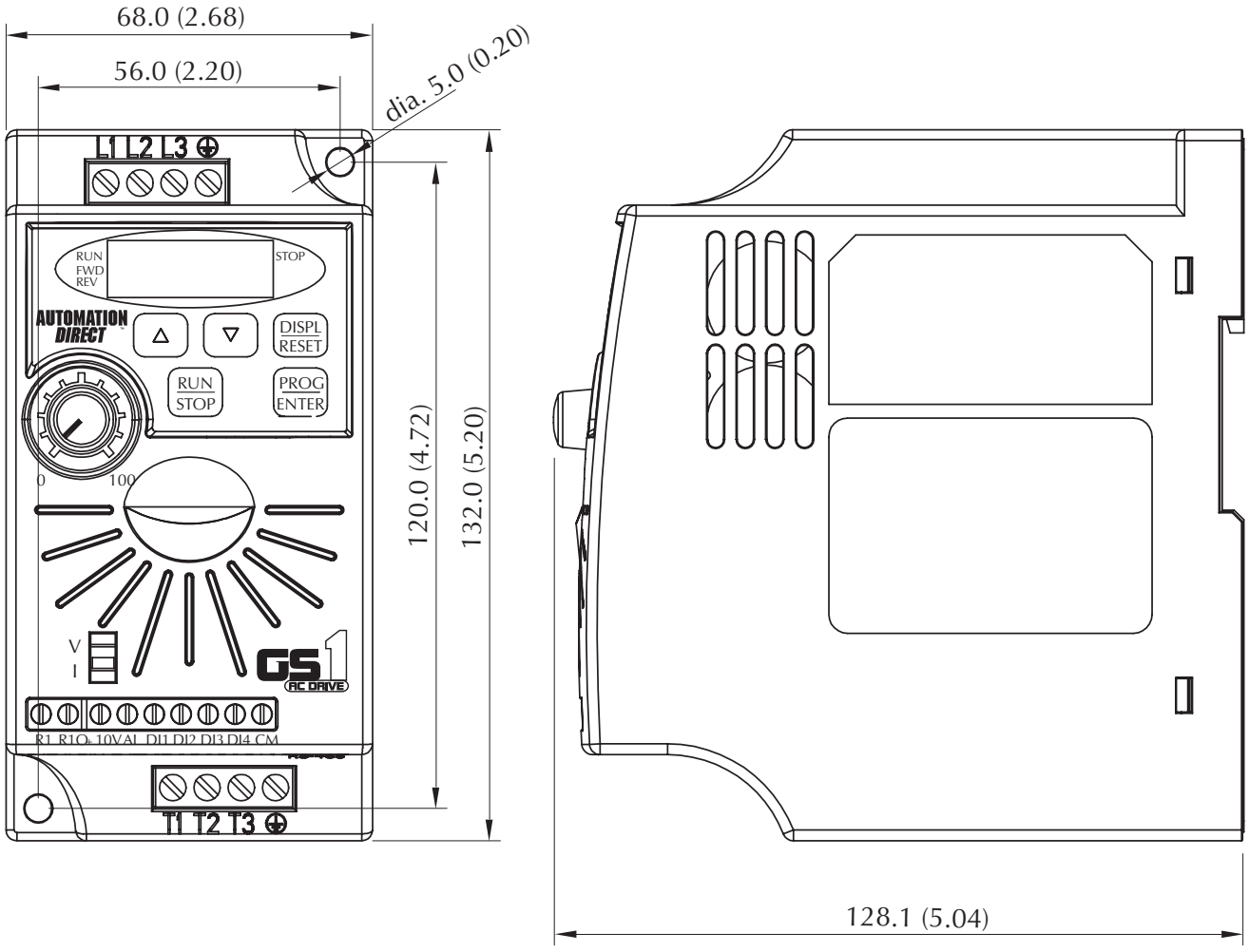
★Factory default setting

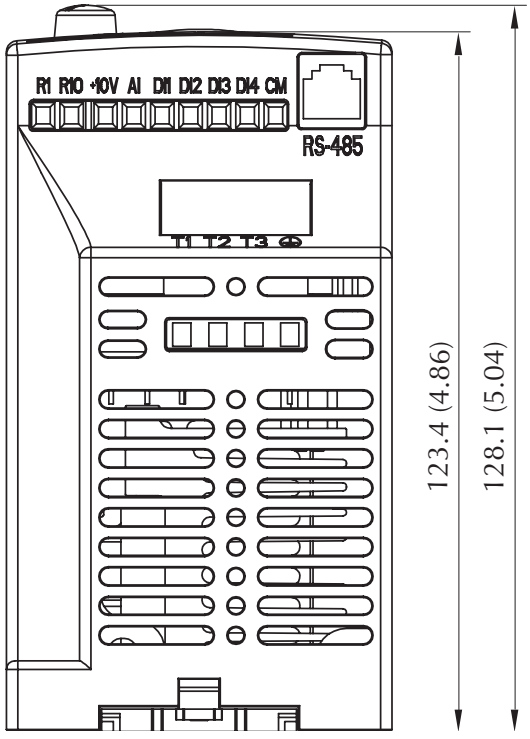
★★Factory default source of frequency command is via the keypad potentiometer

○ Main circuit (power) terminals ● Control circuit terminal ⫩ Shielded leads

WARNING: Do not plug a modem or telephone into the GS1 RJ-12 Serial Comm Port, or permanent damage may result. Terminals 2 and 5 should not be used as a power source for your communication connection.

GS1 Specifications - Dimensions





Unit: mm (in)

Wiring Solutions

Wiring Solutions using the *ZIP*Link Wiring System

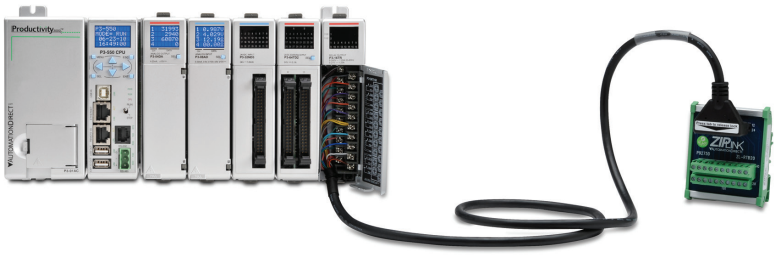
*ZIP*Links eliminate the normally tedious process of wiring between devices by utilizing prewired cables and DIN rail mount connector modules. It's as simple as plugging in a cable connector at either end or terminating wires at only one end. Prewired cables keep installation clean and efficient, using half the space at a fraction of the cost of standard terminal blocks. There are several wiring solutions available when using the *ZIP*Link System ranging from PLC I/O-to-*ZIP*Link Connector Modules that are ready for field termination, options for connecting to third party devices, GS, DuraPulse and SureServo Drives, and specialty relay, transorb and communications modules. Pre-printed I/O-specific adhesive label strips for quick marking of *ZIP*Link modules are provided with *ZIP*Link cables. See the following solutions to help determine the best *ZIP*Link system for your application.

Solution 1: DirectLOGIC, CLICK and Productivity3000 I/O Modules to *ZIP*Link Connector Modules

When looking for quick and easy I/O-to-field termination, a *ZIP*Link connector module used in conjunction with a prewired *ZIP*Link cable, consisting of an I/O terminal block at one end and a multi-pin connector at the other end, is the best solution.

Using the PLC I/O Modules to *ZIP*Link Connector Modules selector tables located in this section,

1. Locate your I/O module/PLC.
2. Select a *ZIP*Link Module.
3. Select a corresponding *ZIP*Link Cable.



Solution 2: *Direct*LOGIC, CLICK and Productivity3000 I/O Modules to 3rd Party Devices

When wanting to connect I/O to another device within close proximity of the I/O modules, no extra terminal blocks are necessary when using the *ZIP*Link Pigtail Cables. *ZIP*Link Pigtail Cables are prewired to an I/O terminal block with color-coded pigtail with soldered-tip wires on the other end.

Using the I/O Modules to 3rd Party Devices selector tables located in this section,

1. Locate your PLC I/O module.
2. Select a *ZIP*Link Pigtail Cable that is compatible with your 3rd party device.

Solution 3: GS Series and *DURAPULSE* Drives Communication Cables

Need to communicate via Modbus RTU to a drive or a network of drives?

*ZIP*Link cables are available in a wide range of configurations for connecting to PLCs and *Sure*Servo, *Sure*Step, Stellar Soft Starter and AC drives. Add a *ZIP*Link communications module to quickly and easily set up a multi-device network.

Using the Drives Communication selector tables located in this section,

1. Locate your Drive and type of communications.
2. Select a *ZIP*Link cable and other associated hardware.

ZIPLink Wiring Solutions

Solution 4: Serial Communications Cables

*ZIP*Link offers communications cables for use with *Direct*LOGIC, CLICK, and Productivity3000 CPUs, that can also be used with other communications devices. Connections include a 6-pin RJ12 or 9-pin, 15-pin and 25-pin D-sub connectors which can be used in conjunction with the RJ12 or D-Sub Feedthrough modules.

Using the **Serial Communications Cables** selector table located in this section,

1. Locate your connector type
2. Select a cable.

Solution 5: Specialty *ZIP*Link Modules

For additional application solutions, *ZIP*Link modules are available in a variety of configurations including stand-alone relays, 24VDC and 120VAC transorb modules, D-sub and RJ12 feedthrough modules, communication port adapter and distribution modules, and SureServo 50-pin I/O interface connection.

Using the ***ZIP*Link Specialty Modules** selector table located in this section,

1. Locate the type of application.
2. Select a ZIPLink module.

Solution 6: *ZIP*Link Connector Modules to 3rd Party Devices

If you need a way to connect your device to terminal blocks without all that wiring time, then our pigtail cables with color-coded soldered-tip wires are a good solution. Used in conjunction with any compatible *ZIP*Link Connector Modules, a pigtail cable keeps wiring clean and easy and reduces troubleshooting time.

Using the **Universal Connector Modules and Pigtail Cables** table located in this section,

1. Select module type.
2. Select the number of pins.
3. Select cable.

Motor Controller Communication

Drive / Motor Controller (GS/*DURAPULSE*/SureServo/SureStep/Stellar) *ZIP*Link Selector							
Drive / Motor Controller		**Communications**			***ZIP*Link Cable**		
Controller	***Comm Port Type***	***Network/Protocol***	***Connects to***	***Comm Port Type***	***Cable (2 meter length)***	***Cable Connectors***	***Other Hardware Required***
GS1	RJ12	RS-485 Modbus RTU	DL06 PLCs	Port 2 (HD15)	GS-485HD15-CBL-2	RJ12 to HD15	–
			D2-260 CPU				–
			GS-EDRV100	RJ12	GS-EDRV-CBL-2	RJ12 to RJ12	–
			ZL-CDM-RJ12Xxx*	RJ12	GS-485RJ12-CBL-2		–
			FA-ISOCON	5-pin Connector	GS-ISOCON-CBL-2	RJ12 to 5-pin plug	–
GS2	RJ12	RS-232 Modbus RTU	CLICK PLCs	Port 2 (RJ12)	GS-RJ12-CBL-2	RJ12 to RJ12	–
			DL05 PLCs				–
			DL06 PLCs	Port 2 (HD15)			FA-15HD
			D2-250-1 CPU				
			D2-260 CPU				
			D4-450 CPU	Port 3 (25-pin)			FA-CABKIT
			P3-550 CPU	Port 2 (RJ12)			–
		RS-485 Modbus RTU	DL06 PLCs	Port 2 (HD15)	GS-485HD15-CBL-2	RJ12 to HD15	–
			D2-260 CPU				–
			GS-EDRV100	RJ12	GS-EDRV-CBL-2	RJ12 to RJ12	–
			ZL-CDM-RJ12Xxx*	RJ12	GS-485RJ12-CBL-2		–
			FA-ISOCON	5-pin Connector	GS-ISOCON-CBL-2	RJ12 to 5-pin plug	–
DuraPulse (GS3)	RJ12	RS-485 Modbus RTU	DL06 PLCs	Port 2 (HD15)	GS-485HD15-CBL-2	RJ12 to HD15	–
			D2-260 CPU				–
			GS-EDRV100	RJ12	GS-EDRV-CBL-2	RJ12 to RJ12	–
			ZL-CDM-RJ12Xxx*	RJ12	GS-485RJ12-CBL-2		–
			FA-ISOCON	5-pin Connector	GS-ISOCON-CBL-2	RJ12 to 5-pin plug	–
Stellar (Soft Starter) SR44 Series	RJ45**	RS-485 Modbus RTU	DL06 PLCs	Port 2 (HD15)	SR44-485HD15-CBL-2	RJ45 to HD15	SR44-RS485**
			D2-250-1 CPU				
			D2-260 CPU				
			ZL-CDM-RJ12Xxx*	RJ12	SR44-485RJ45-CBL-2	RJ45 to RJ12	
SureServo	IEEE1394 (CN3)	RS-232 Modbus RTU	CLICK PLCs	Port 2 (RJ12)	SVC-232RJ12-CBL-2	6-pin IEEE to RJ12	–
			DL05 PLCs				–
			DL06 PLCs	Port 2 (HD15)			FA-15HD
			D2-250-1 CPU				
			D2-260 CPU				
			D4-450 CPU	Port 3 (25-pin)			FA-CABKIT
			P3-550 CPU	Port 2 (RJ12)			–
		RS-485 Modbus RTU	DL06 PLCs	Port 2 (HD15)	SVC-485HD15-CBL-2	6-pin IEEE to HD15	–
			D2-260 CPU				–
			ZL-CDM-RJ12Xxx*	RJ12	SVC-485RJ12-CBL-2	6-pin IEEE to RJ12	–
			USB-485M	RJ45	SVC-485CFG-CBL-2	6-pin IEEE to RJ45	–
SureStep	RJ12	RS-232 ASCII	DL06 PLCs	Port 2 (HD15)	STP-232HD15-CBL-2	HD15-pin to RJ12	–
			D2-250-1 CPU				–
			D2-260 CPU (Port2)				–
			DL05 PLCs	RJ12	STP-232RJ12-CBL-2	RJ12 to RJ12	–
			CLICK PLCs				–

**** When using the ZL-CDM-RJ12Xxx ZIPLink Communication Distribution Module, replace the lowercase "xx" with the number of RJ12 ports, i.e. "4" for four ports, or "10" for ten ports. (ex: ZL-CDM-RJ12X4 or ZL-CDM-RJ12X10)***

***** The SR44-RS485 Communications Adapter must be installed for RS-485 communications with the Stellar soft starters.***

Hitachi Drives Cross References

To find a suitable replacement for an SJ300 Hitachi drive, use the chart to the right to determine control mode(s) required, and the tables below to determine possible replacement part numbers. Suggested replacements do not necessarily have all control modes of the original, so appropriate drives will be application-dependent. Please call Tech Support if there are any replacement questions.

Drive Series	Volts/Hz	PID	Sensorless Vector	Full Flux Vector
L100	✓	✓		
SJ100	✓	✓	✓	
GS1	✓			
GS2	✓	✓		
DURAPULSE (GS3)	✓	✓	✓	
SJ300	✓	✓	✓	✓

Hitachi SJ300 Cross Reference

	Hitachi SJ300 AC Drives		Possible Replacements					
	Part No.	Horsepower	GS1	Price	GS2	Price	DURAPULSE (GS3)	Price
230V	SJ300-004LFU	0.5 hp	GS1-20P5	$117.00	GS2-20P5	$158.00	GS3-21P0 **	$242.00
	SJ300-007LFU	1.0 hp	GS1-21P0	$134.00	GS2-21P0	$177.00	GS3-21P0	$242.00
	SJ300-015LFU	2.0 hp	GS1-22P0 *	$164.00	GS2-22P0	$251.00	GS3-22P0	$293.00
	SJ300-022LFU	3.0 hp	–	–	GS2-23P0	$309.00	GS3-23P0	$347.00
	SJ300-037LFU	5.0 hp	–	–	GS2-25P0 *	$363.00	GS3-25P0 *	$400.00
	SJ300-055LFU	7.5 hp	–	–	GS2-27P5 *	$465.00	GS3-27P5 *	$549.00
	SJ300-075LFU	10 hp	–	–	–	–	GS3-2010 *	$698.00
	SJ300-110LFU	15 hp	–	–	–	–	GS3-2015 *	$889.00
	SJ300-150LFU	20 hp	–	–	–	–	GS3-2020 *	$1,104.00
	SJ300-185LFU	25 hp	–	–	–	–	GS3-2025 *	$1,298.00
	SJ300-220LFU	30 hp	–	–	–	–	GS3-2030 *	$1,486.00
460V	SJ300-007HFU	1.0 hp	–	–	GS2-41P0 *	$261.00	GS3-41P0 *	$323.00
	SJ300-015HFU	2.0 hp	–	–	GS2-42P0 *	$303.00	GS3-42P0 *	$360.00
	SJ300-022HFU	3.0 hp	–	–	GS2-43P0 *	$357.00	GS3-43P0 *	$385.00
	SJ300-040HFU	5.0 hp	–	–	GS2-45P0 *	$410.00	GS3-45P0 *	$427.00
	SJ300-055HFU	7.5 hp	–	–	GS2-47P5 *	$586.00	GS3-47P5 *	$613.00
	SJ300-075HFU	10 hp	–	–	GS2-4010 *	$725.00	GS3-4010 *	$734.00
	SJ300-110HFU	15 hp	–	–	–	–	GS3-4015 *	$957.00
	SJ300-150HFU	20 hp	–	–	–	–	GS3-4020 *	$1,165.00
	SJ300-185HFU	25 hp	–	–	–	–	GS3-4025 *	$1,383.00
	SJ300-220HFU	30 hp	–	–	–	–	GS3-4030 *	$1,570.00

***Notes:** Replacement drives do not necessarily have the same physical dimensions, mounting hole patterns or wiring terminal arrangements.*

** All SJ300 drives are specified for use with 3-phase power (but can be installed in single-phase applications). Replacement drive requires 3-phase power. Ensure that the existing SJ application uses 3-phase input power, or that 3-phase power is available.*

*** Replacement drive is higher horsepower than existing drive. Output power of new drive can be parameter-limited to the smaller horsepower.*

Hitachi Drives Cross References

To find a suitable replacement for an L100 or SJ100 Hitachi drive, use the chart to the right to determine control mode(s) required, and the tables below to determine possible replacement part numbers. Suggested replacements do not necessarily have all control modes of the original, so appropriate drives will be application-dependent. Please call Tech Support if there are any replacement questions.

Drive Series	Volts/Hz	PID	Sensorless Vector	Full Flux Vector
L100	✓	✓		
SJ100	✓	✓	✓	
GS1	✓			
GS2	✓	✓		
DURAPULSE	✓	✓	✓	
SJ300	✓	✓	✓	✓

Hitachi L100 Cross Reference

Hitachi L100 AC Drives			Possible Replacements					
	Part No.	Horsepower	GS1	Price	GS2	Price	DURAPULSE	Price
230V	L100-002NFU	0.25 hp	GS1-20P2	$113.00	GS2-20P5 **	$158.00	GS3-21P0 **	$242.00
	L100-004NFU	0.5 hp	GS1-20P5	$117.00	GS2-20P5	$158.00	GS3-21P0 **	$242.00
	L100-007NFU	1.0 hp	GS1-21P0	$134.00	GS2-21P0	$177.00	GS3-21P0	$242.00
	L100-015NFU	2.0 hp	GS1-22P0 *	$164.00	GS2-22P0	$251.00	GS3-22P0	$293.00
	L100-022NFU	3.0 hp	–	–	GS2-23P0	$309.00	GS3-23P0	$347.00
	L100-037LFU	5.0 hp	–	–	GS2-25P0 *	$363.00	GS3-25P0 *	$400.00
	L100-055LFU	7.5 hp	–	–	GS2-27P5 *	$465.00	GS3-27P5 *	$549.00
	L100-075LFU	10 hp	–	–	–	–	GS3-2010 *	$698.00
460V	L100-004HFU	0.5 hp	–	–	GS2-41P0 * **	$261.00	GS3-41P0 * **	$323.00
	L100-007HFU	1.0 hp	–	–	GS2-41P0 *	$261.00	GS3-41P0 *	$323.00
	L100-015HFU	2.0 hp	–	–	GS2-42P0 *	$303.00	GS3-42P0 *	$360.00
	L100-022HFU	3.0 hp	–	–	GS2-43P0 *	$357.00	GS3-43P0 *	$385.00
	L100-040HFU	5.0 hp	–	–	GS2-45P0 *	$410.00	GS3-45P0 *	$427.00
	L100-055HFU	7.5 hp	–	–	GS2-47P5 *	$586.00	GS3-47P5 *	$613.00
	L100-075HFU	10 hp	–	–	GS2-4010 *	$725.00	GS3-4010 *	$734.00

Notes: Replacement drives do not necessarily have the same physical dimensions, mounting hole patterns or wiring terminal arrangements.
** = Replacement drive requires 3-phase input power. Ensure that the existing application uses 3-phase input power, or that 3-phase power is available.*
*** = Replacement drive is higher horsepower than existing drive. Output power of new drive can be parameter-limited to the smaller horsepower.*

Hitachi SJ100 Cross Reference

Hitachi SJ100 AC Drives			Possible Replacements					
	Part No.	Horsepower	GS1	Price	GS2	Price	DURAPULSE	Price
230V	SJ100-002NFU	0.25 hp	GS1-20P2	$113.00	GS2-20P5 **	$158.00	GS3-21P0 **	$242.00
	SJ100-004NFU	0.5 hp	GS1-20P5	$117.00	GS2-20P5	$158.00	GS3-21P0 **	$242.00
	SJ100-007NFU	1.0 hp	GS1-21P0	$134.00	GS2-21P0	$177.00	GS3-21P0	$242.00
	SJ100-015NFU	2.0 hp	GS1-22P0 *	$164.00	GS2-22P0	$251.00	GS3-22P0	$293.00
	SJ100-022NFU	3.0 hp	–	–	GS2-23P0	$309.00	GS3-23P0	$347.00
	SJ100-037LFU	5.0 hp	–	–	GS2-25P0 *	$363.00	GS3-25P0 *	$400.00
	SJ100-055LFU	7.5 hp	–	–	GS2-27P5 *	$465.00	GS3-27P5 *	$549.00
	SJ100-075LFU	10 hp	–	–	–	–	GS3-2010 *	$698.00
460V	SJ100-004HFU	0.5 hp	–	–	GS2-41P0 * **	$261.00	GS3-41P0 * **	$323.00
	SJ100-007HFU	1.0 hp	–	–	GS2-41P0 *	$261.00	GS3-41P0 *	$323.00
	SJ100-015HFU	2.0 hp	–	–	GS2-42P0 *	$303.00	GS3-42P0 *	$360.00
	SJ100-022HFU	3.0 hp	–	–	GS2-43P0 *	$357.00	GS3-43P0 *	$385.00
	SJ100-040HFU	5.0 hp	–	–	GS2-45P0 *	$410.00	GS3-45P0 *	$427.00
	SJ100-055HFU	7.5 hp	–	–	GS2-47P5 *	$586.00	GS3-47P5 *	$613.00
	SJ100-075HFU	10 hp	–	–	GS2-4010 *	$725.00	GS3-4010 *	$734.00

Notes: Replacement drives do not necessarily have the same physical dimensions, mounting hole patterns or wiring terminal arrangements.
** = Replacement drive requires 3-phase input power. Ensure that the existing application uses 3-phase input power, or that 3-phase power is available.*
*** = Replacement drive is higher horsepower than existing drive. Output power of new drive can be parameter-limited to the smaller horsepower.*